

## DATA QUALITY MANAGEMENT CONTROL (DQMC) PROGRAM

***July 21, 2015***



***“Medically Ready Force...Ready  
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# DHA Vision



“A joint, integrated, premier system of health, supporting those who serve in the defense of our country.”



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# Briefing Purpose



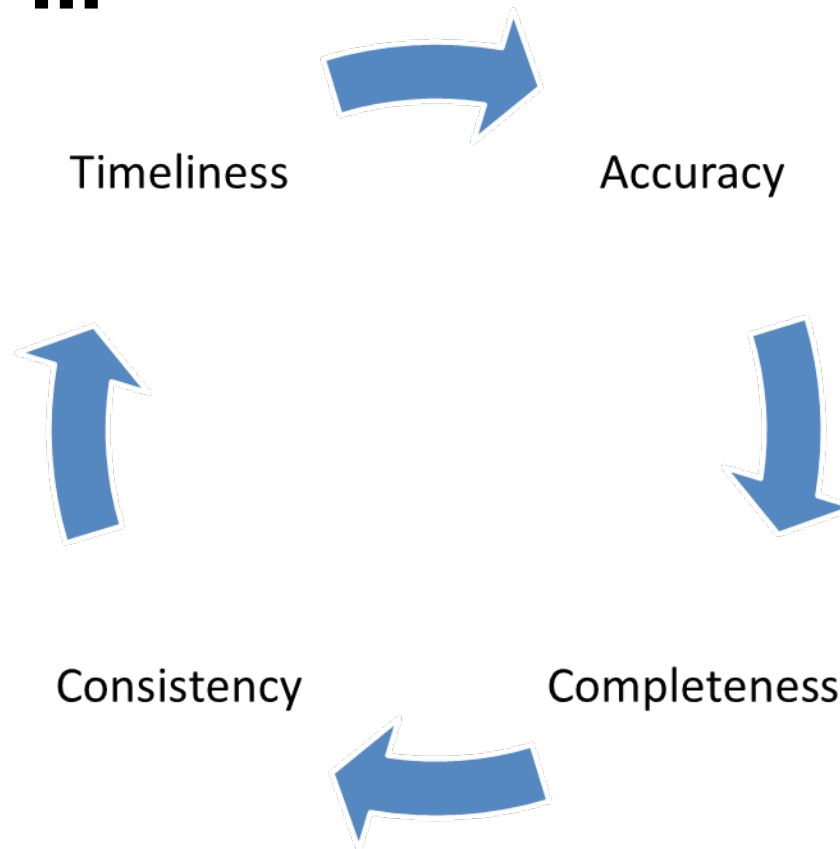
## **Provide an overview of the Data Quality Management Control (DQMC) Program in the Military Health System (MHS):**

- Data Quality Concepts
- DQMC Program Background
- Defense Health Agency (DHA) Summary of DQ Metrics
- FY15 DQ Metrics Observations
- Inspections and External Audits
- Current Topics and Issues
- Conclusion

# Data Quality Concepts



## Attributes ...

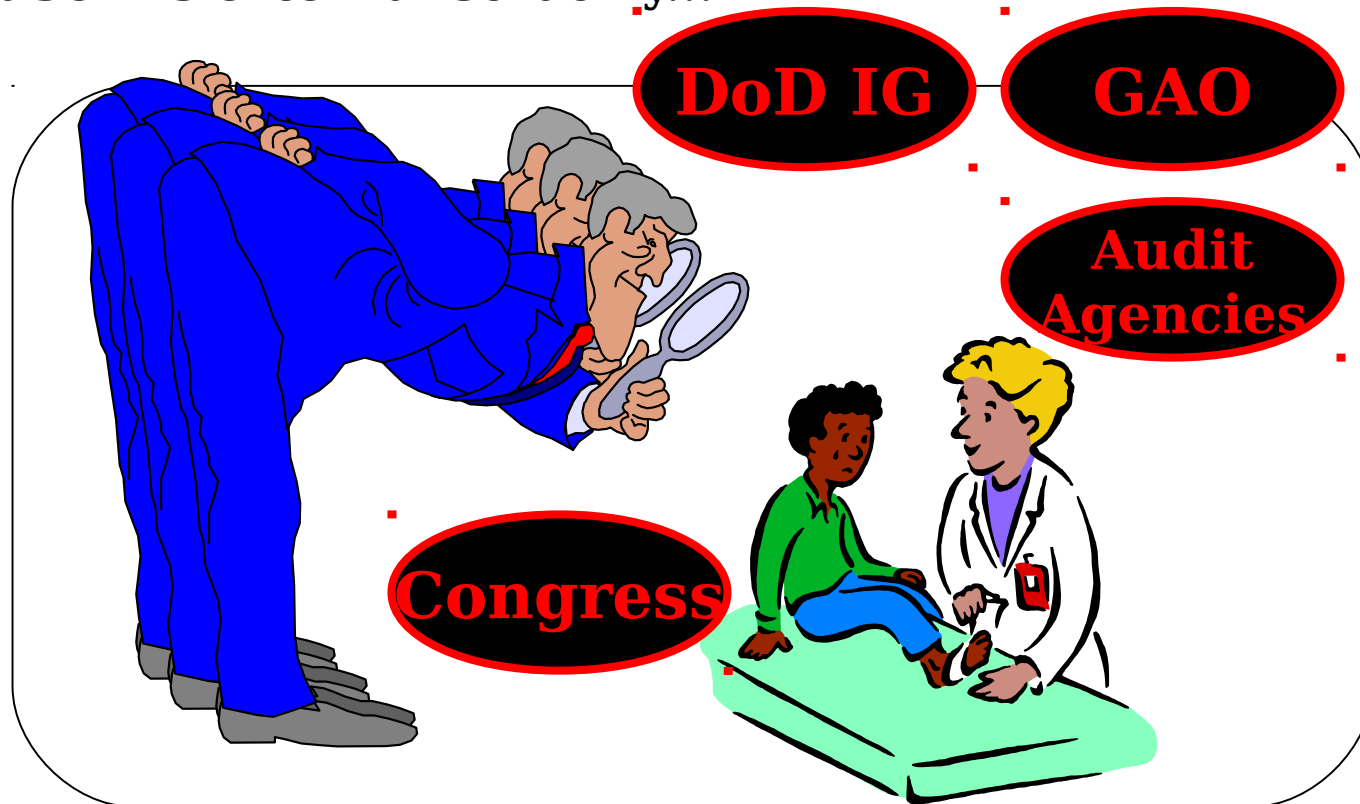


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# Data Quality Concepts

## Why Worry about Data Quality?

One reason is external scrutiny...



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# Data Quality Concepts



## Problems with Information Technology (IT)

- Typically, Data Quality is viewed as an IT problem ...
- Some of our problems with data quality can be attributed to problems with Information Technology (IT)
- Examples:
  - Errors in transmission of data
  - Errors in processing data
  - Unsynchronized databases
- But ...
- The most difficult problems we face with data quality are not directly attributable to IT, nor readily fixed by IT solutions

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# Data Quality Concepts



## **A few examples of non-Information Technology issues affecting data quality:**

- Lack of standardized business rules and policies
- Inconsistent choices of codes, weights and algorithms
- Lack of adequate training and education
- Lack of adequate local data quality assurance
- Failure to set and enforce tough performance expectations about data quality

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# Data Quality Concepts



## Our people have to understand both the business and the technology...

- Training and Education: Quality data requires more than training data-entry personnel
  - ❑ DQMC Training Course - aimed at DQ Managers (offered at least 1 time a year)
  - ❑ MEPRS Application & Data Improvement (MADI - online) and QUEST (advanced MEPRS class)
  - ❑ Working Information Systems to Determine Optimal Management (WISDOM) for MDR and M2 analysis
  - ❑ Providers - Documentation and Coding

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# Data Quality Concepts



## **Solutions to effectively fix data problems:**

- Reasonable feedback for Commanders and Users, such as:
  - Metrics - Fast feedback to Commanders about the quality of their data
  - Rapid availability of data for use
- Best Practices – literature, forums, conferences
- Core Competencies

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# DQMC Program Background



## DQMC Program Implemented by TRICARE Management

### Activity (TMA) on Dec 1, 2000 (Fiscal Year (FY) 2001)

- DoD Inspector General (DoD IG) identified material management control weakness for MHS - Directed development of data quality assurance and management control program
- 2 Specific Reports:
  - DoD IG report concerning the FY98 Retirement Liability Estimate
  - Government Accountability Office (GAO) Medicare Subvention Demonstration report
- Assistant Secretary of Defense (Health Affairs) (ASD (HA)) concurred with the DoD IG material management control weakness findings
- ASD (HA) designated TMA Resource Management Steering Committee to oversee the development of TMA DQMC Program

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# DQMC Program Background



## TMA Data Quality Management Control Program

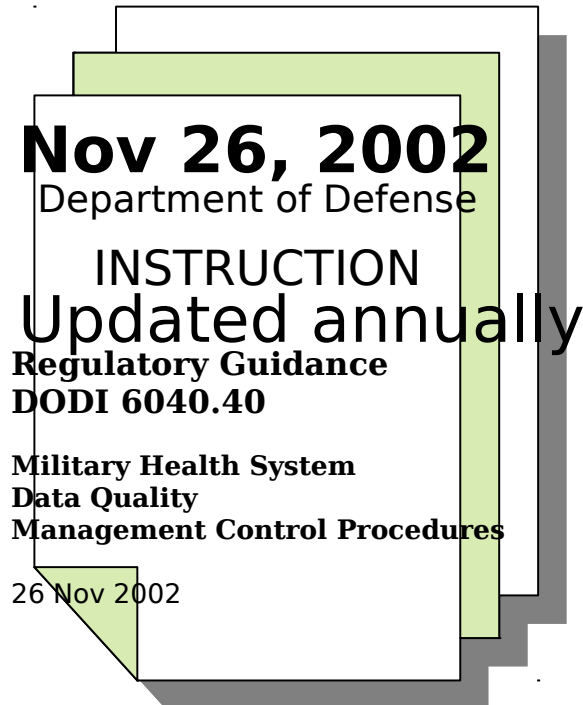
- Development of DQMC Program involved multiple working groups to include major representatives
  - DoD comptroller, DoD IG and GAO provided oversight in its development
  - Service Representatives with input from field (former Region 11 Military Treatment Facilities (MTFs))
- Policy Memorandum signed on Nov 29, 2000 (implemented on Dec 1, 2000)
  - Subsequently updated by policy memos (May 9, 2001, Oct 17, 2001, Sep 5, 2002) and DoDI 6040.40 (Nov 26, 2002)



# DQMC Program Background



**Directed by Department of Defense Inspector General (DoD IG)**



**- DoDI 6040.40 of**

- 2 Enclosures
- DQMC Review List
  - Commander's Data Quality Statement

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# DQMC Program Background



**DHA DQMC Program continues to improve data quality so that the MTF receives credit for the good work that they do:**

- Data Quality Manager & Data Quality Assurance Team
  - *MTF team works together monthly on DQ metrics*
- DQMC Review List - *Internal tool to assist MTFs in identifying and correcting workload data*
- Commander's Data Quality Statement – *Subset of the DQMC Review List that the Commander approves and sends to Service and NCR MD DQ Representatives and DHA DQMC Program Manager*

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# DQMC Program Background



- DHA DQMC Workgroup (meets monthly)
  - DHA Chair, Service and NCR MD DQ Representatives
  - Subject Matter Experts engaged for corrective action
  - Service and DHA-wide issues discussed and documented

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# DQMC Program Background



# DHA Summary of DQ Metrics



## ■ Commander's DQ Statements:

- ❑ Sent to DHA from Services on the 10th of the month for the preceding month's report (Applies to the prior month's data.)

## ■ DHA Summary:

- ❑ Constructed from the three Service and National Capital Region Medical Directorate (NCR MD) Trends, and briefed to senior leadership at the Medical Business Operations Group (MBOG) quarterly



# DHA Summary of DQ Metrics



- Timely feedback to the Commanders about the quality of their data
- Discussed monthly at DQMC Workgroup meetings
- Service DQ Reps and DHA meet
- Service and DHA-wide issues discussed and documented:
  - Capturing of Outpatient data in CAPERs
  - Table updates
  - Metrics compliance and implementation
  - Coding error reports

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# DHA Summary of DQ Metrics



## How are these metrics used?

- DHA review of ground situation
  - ☐ Metrics & Reports
  - ☐ Important reference material
  - ☐ “DHA Summary” created by consolidating results of the Commander’s DQ Statements
- Posted by the Services for discussion
  - Peer Review

Defense Health Agency

# See handout

**NOTE: Color Code: Green (95-100), Yellow (80-94), Red (79 and below)**


Reporting Month Data Month Service Name	Month #1 - Percent Compliant										Month #2 - Percent Compliant				
	Dec-14	Dec-14	Dec-14	Dec-14	Dec-14	Dec-14	Nov-15	Nov-15	Nov-15	Nov-15	Nov-15				
	Oct-14	Oct-14	Oct-14	Oct-14	Oct-14	Nov-14	Nov-14	Nov-14	Nov-14	Nov-14					
QUESTION KEY:	Army	Navy	Air Force	NCRMD	Service	Army	Navy	Air Force	NCRMD	Service					
1. In the data month (include only B*** and FBN* accounts):															
a. What percentage of appointments was closed in meeting your "End of Day" processing requirements, "Every appointment - Every day?" (B.4.a)	100%	99%	100%	99%	99%	99%	99%	100%	97%	99%					
2. IAW legal and medical coding practices have all the following occurred: (B.5.a, b, c)															
a. What percentage of Outpatient Encounters, other than APVs, has been coded within 3 business days of the encounter?	93%	94%	94%	90%	93%	93%	94%	93%	82%	91%					
b. What percentage of APVs has been coded within 15 calendar days of the Encounter?	93%	91%	89%	71%	86%	91%	89%	85%	76%	85%					
c. What percentage of Inpatient records has been coded within 30 calendar days after discharge?	85%	47%	45%	29%	52%	92%	87%	43%	47%	67%					
3. MEPRS Manual, DoD 6010.13-M, dated April 7, 2008, paragraph C3.3.4, requires report reconciliation. (C.1.a, c, e, f)															
a. Monthly MEPRS (EAS) financial reconcile completed, validated & approved by MTF RM prior to MEPRS transmit?	97%	100%	99%	50%	86%	100%	100%	100%	50%	88%					
b. MEVACS document reviewed and explanations provided for flagged data anomalies?	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%					
c. For DMHRSi, what is the percentage of submitted timecards by the suspense date?	100%	95%	98%	98%	98%	100%	99%	99%	98%	98%					
d. For DMHRSi, what is the percentage of approved timecards by the suspense date?	100%	94%	99%	98%	98%	100%	94%	99%	97%	97%					
4. Compliance with DHA or Service-Level guidance for timely submission of data: (C.3.a, b, c, d)															
a. MEPRS (EAS) - 45 calendar days	100%	88%	93%	50%	83%	97%	100%	96%	50%	86%					
b. SIDR (CHCS) - Weekly on Friday or Service Guidance	82%	100%	92%	100%	93%	86%	100%	62%	100%	87%					
c. CAPER (ADM) - Daily	98%	100%	99%	100%	99%	99%	100%	100%	100%	100%					
d. DOWDR or Daily Patient Appointments File - Daily Transmissions	99%	95%	100%	100%	99%	99%	100%	100%	100%	100%					
5. Outcome of Inpatient Coding Audit: (C.5.c, e, f, g)															
a. percentage of inpatient records whose assigned MS-DRG codes were correct?	98%		99%			99%		99%	100%						
b. percentage of Inpatient Professional Services Rounds encounters E & M codes audited and deemed correct?	99%		97%			99%		94%	97%						
c. percentage of Inpatient Professional Services Rounds encounters ICD-9 codes audited and deemed correct?	95%		95%			96%		98%	99%						
d. percentage of Inpatient Professional Services Rounds encounters CPT codes audited and deemed correct?	98%		96%			98%		92%	88%						
6. Outcome of Outpatient Record Audit (C.6.a, b, c, d)															
a. Is adequate documentation of the encounter selected to be audited available? A loose (hard) copy or AHLTA electronic record (denominator = sample size)	99%		100%			100%		100%	100%						
b. What is the percentage of E & M Codes deemed correct? (E & M Code must comply with DoD guidance)	90%		85%			89%		87%	80%						
c. What is the percentage of ICD-9 Codes deemed correct?	96%		92%			96%		94%	93%						
d. What is the percentage of CPT Codes deemed correct? (CPT Codes must comply with DoD guidance)	95%		89%			95%		90%	82%						
7. Outcome of Ambulatory Procedure Visits (APV) Audit (C.7.a, b, c)															
a. Is adequate documentation of the encounter selected to be audited available? A loose (hard) copy or AHLTA electronic record (denominator = sample size)	100%		93%			100%		96%	100%						
b. What is the percentage of ICD-9 Codes deemed correct?	97%		95%			97%		98%	65%						
c. What is the percentage of CPT Codes deemed correct? (CPT Codes must comply with DoD guidance)	98%		99%			98%		99%	81%						
8. DD-2569 forms. (C.8.a, b, c, d, e, f)															
a. Inpatient Dispositions: What percentage of completed and current DD Form 2569s (TPC Insurance Info) is available for review? (signed in past 12 mos.)	98%	99%	95%	63%	89%	97%	99%	95%	73%	91%					
b. Inpatient Dispositions: What percentage of DD Form 2569s is verified to be correct in the Patient Insurance Information (PII) module in CHCS?	100%	100%	100%	100%	100%	100%	100%	99%	100%	100%					
c. Outpatient Encounters: What percentage of completed and current DD Form 2569s (TPC Insurance Info) is available for review?	86%	82%	86%	63%	79%	86%	82%	87%	61%	79%					
d. Outpatient Encounters: What percentage of DD Form 2569s is verified to be correct in the Patient Insurance Information (PII) module in CHCS?	98%	100%	99%	100%	99%	99%	100%	100%	100%	100%					
e. APVs: What percentage of completed and current DD Form 2569s (TPC Insurance Info) is available for review?	95%	98%	82%	56%	83%	93%	98%	89%	70%	87%					
f. APVs: What percentage of DD Form 2569s is verified to be correct in the Patient Insurance Information (PII) module in CHCS?	99%	99%	95%	100%	98%	100%	99%	99%	100%	100%					
9. Comparison of reported workload data. (C.9.a, b, c, d)															
a. Number of CAPER encounters (count only) / number of Kept-Appointments.	100%	100%	99%	98%	99%	100%	99%	99%	97%	99%					
b. Number of MEPRS dispositions from EAS or WAM / number of SIDR D & E status dispositions.	99%	100%	98%	100%	99%	99%	100%	101%	100%	100%					
c. Number of MEPRS visits / number of Kept-Appointments (count only).	99%	100%	100%	98%	99%	100%	100%	100%	98%	99%					
d. Number of IP Prof Services Rounds CAPER encounters (FCC=A****) / (number of Total Bed days + Dispositions from EAS or WAM).	89%	86%	54%	31%	65%	90%	86%	56%	43%	68%					
10. Use of CHCS during the data month to identify potential duplicate patients and appointments. (C.2.a.4)															
a. For CHCS or AHLTA hosts only, the number of potential duplicate patient registrations in the data month for all MTFs under the host? (ending balance)	142	57	26	37	66	270	74	22	42	102					
11. Results of the Data Quality Coding Error reports. (C.10.a.2, a.3, b)															
a. CAPER Errors corrected / Outpatient Encounters with Gender Conflicts	51%	93%	2%	100%	61%	82%	79%	13%	40%	53%					
b. CAPER Errors corrected / Outpatient Encounters with Age Conflicts	79%	68%	6%	100%	63%	79%	80%	20%	14%	48%					
c. Inpatient Errors corrected / Invalid Inpatient Records	98%	100%	0%	100%	74%	71%	100%	0%	100%	68%					
12. Awareness of Data Quality Issues															
a. I am aware of the DQ issues identified by the DQ Statement & DQMC Review List and have taken action to improve the data from my facility.	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%					

# DHA Summary of DQ Metrics



## ■ Metric Standards (colors) are as follows:

 Green - 95-100%

 Yellow - 80-94%

 Red - 0-79%

- Q11 is a number only – no color

## ■ Metric colors

- ☐ Generally move from red to green as the fiscal year progresses and issues are ironed out
- ☐ Sometimes “RED” is good, revealing a system wide problem

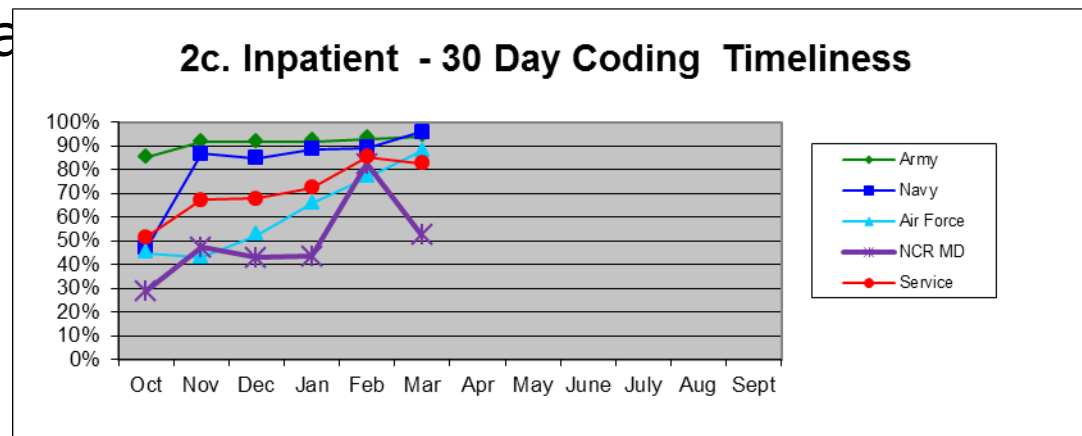
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# FY15 DQ Metrics Observations



## ■ 2c: Inpatient medical record coding is sensitive to table release

- FY15 International Classification of Diseases, 9th Edition/Revision (ICD-9) code table updates for DHA were released in Nov; Standard Inpatient Data Record (SIDR) and grouping completion has to wait for ta

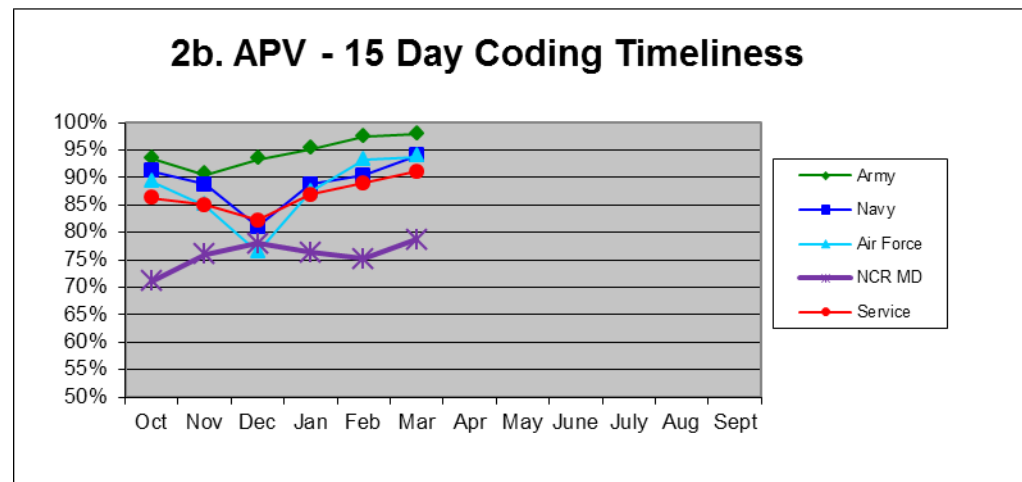


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# FY15 DQ Metrics Observations



- **2b: Lack of coding resources are an issue for ambulatory procedure visit (APV) coding timeliness as well**
  - MTFs struggling to meet coding resource demand

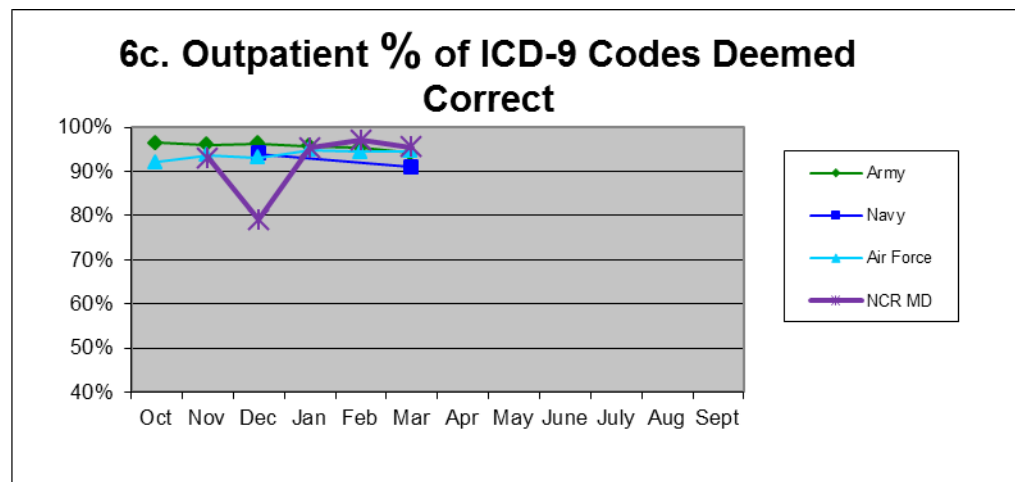


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# FY15 DQ Metrics Observations



- 6c: Quarterly/Monthly coding audits continue to show mixed results
  - ❑ Diagnoses seem to be correct
  - ❑ Compare to Q11a, coding error detailed report

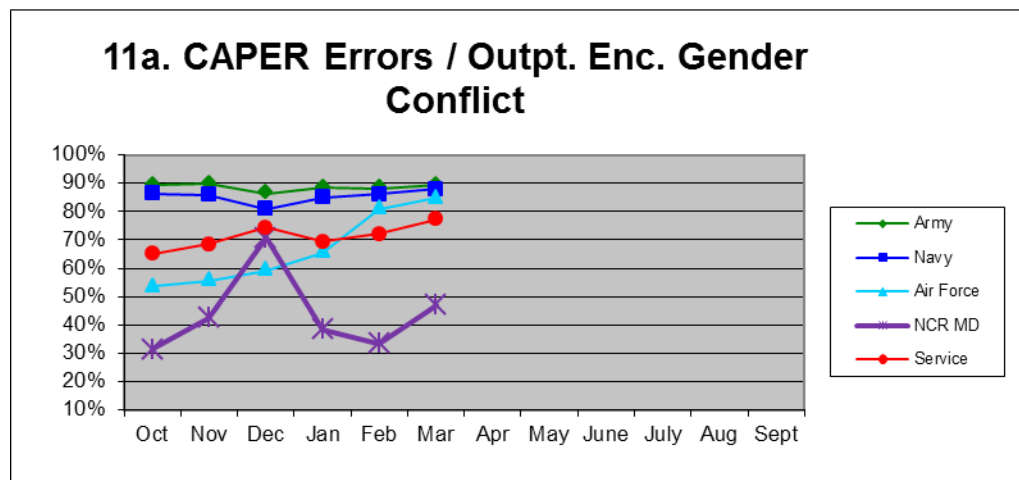


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# FY15 DQ Metrics Observations



- 11a: FY15 Commander's DQ Statement reports the results of Coding Error Reports
  - Diagnosis error due to gender conflict for Outpatient encounters (Comprehensive Ambulatory/Professional Encounter Record (CAPER))



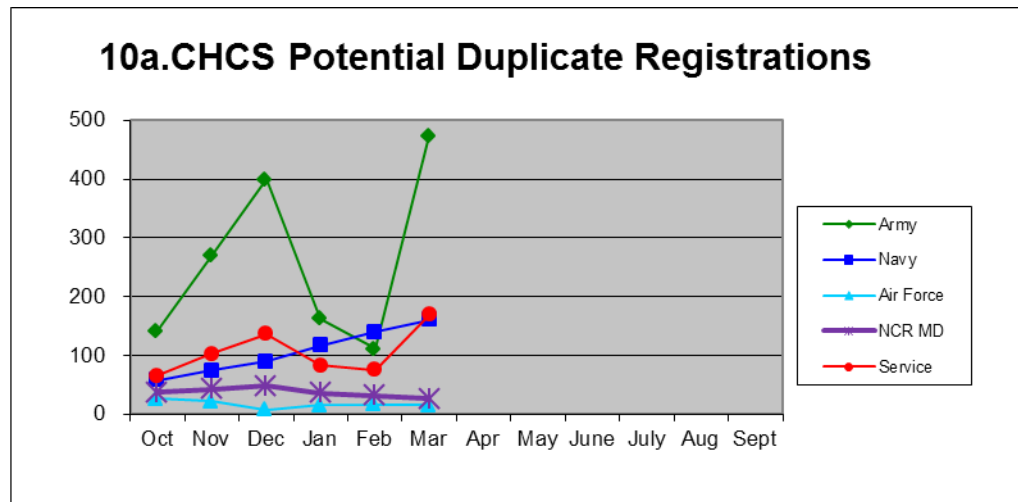
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# FY15 DQ Metrics Observations



- **10a: Services and NCR MD use DQ monthly reports**
  - Surveillance, training, source of “certified” performance metrics
  - Potential Duplicate Patient Registrations
    - Collecting metric continues to illustrate issues (Q10a)



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# Inspections and External Audits



**DoD IG inspected - results (Apr 01-Oct 01) were published in a report signed 29 Aug 02.**

## **General Comments:**

- Inadequate preparation and training of the DQ Team

## **DoD IG MTF Specific Comments:**

- Lack of audit trail - no supporting documentation
- Lack of accountability
- Lack of training

# Inspections and External Audits



## **DOD IG inspection led to the following outcomes:**

- Retention of medical records at the MTF
- Creation of the DQMC Training Course
- *Requiring an External Medical Records Coding Audit*

# Inspections and External Audits



## Requirement of an External Medical Records Coding audit led to - 2002 Iowa Foundation Coding Audit

- The audit consisted of 50 sites, 11,254 cases
- Unavailability of records (47%)
- Specific encounter not found in 9% of the records
- Coded incorrectly, 27%; 70% over coded, 30% under coded
- Coded correctly, 17%

## AdvanceMed ended up with similar results

- National Capitol Region (NCR) availability of records (9%)

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# Inspections and External Audits



## MTF External Coding Audit: Process

### MHS Data Repository



### Random Sample

**2189** records  
pulled at random  
- SDRs and CAPERS

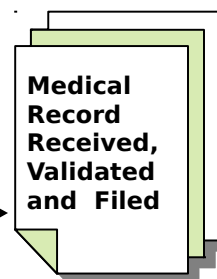
Random  
Sample  
List



### Paper Records



### AHLTA



## Coding Audit



- Audit for availability of record
- Audit for accuracy of coding
- Audit for accuracy of coding from financial liability perspective (financial audit)
- Reliability tests confirmed audit results
  - Intra-examiner (same auditor, re-audit later in time)
  - Inter-examiner (different auditor, re-

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# Inspections and External Audits



## Random Sample

- Prior to the FY14 audit, the same number of records were audited for each Service: 500 OP, 500 APV and 200 IP. The records were randomly selected by type of service (OP, APV, IP) within the Army, Navy and Air Force.
- In FY14, the sample sizes for each type of service was calculated using a 95% confidence interval based on a historical pass rate and a 5% oversample rate, resulting in a sample size of 822 for OP, 822 for APV and 545 for IP.
- Used FY12 medical records
- The random selection of records for each type of service (OP, APV, IP) is based on workload regardless of Service affiliation and resulted in the following number of records to be selected for each Service and NCR MD:

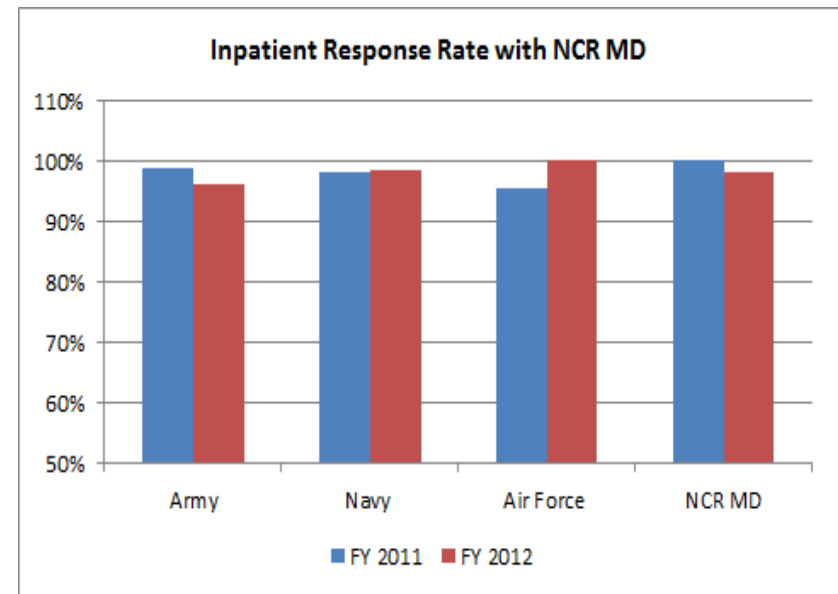
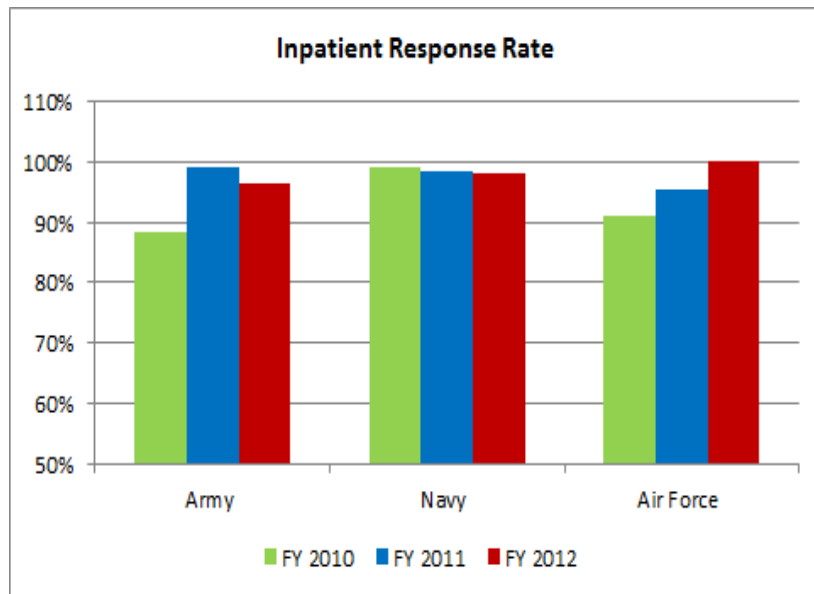
	Army	Navy	Air Force	NCR MD	Total
OP, Non-APV (CAPER)	361	204	212	45	822
APV (CAPER)	348	198	128	148	822
IP (SIDR)	291	129	72	53	545
Total	1000	531	412	246	2189

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# Inspections and External Audits



## Outpatient Audit Response Rates



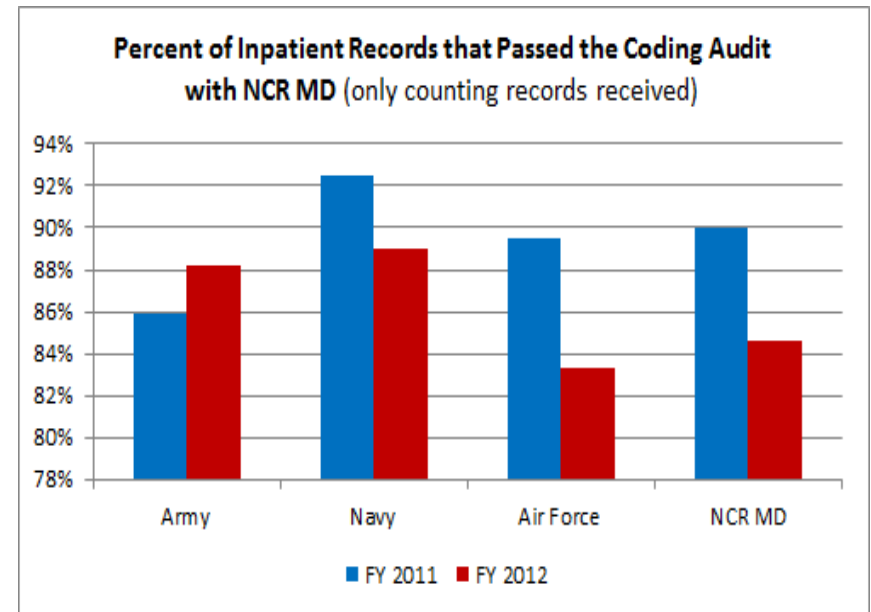
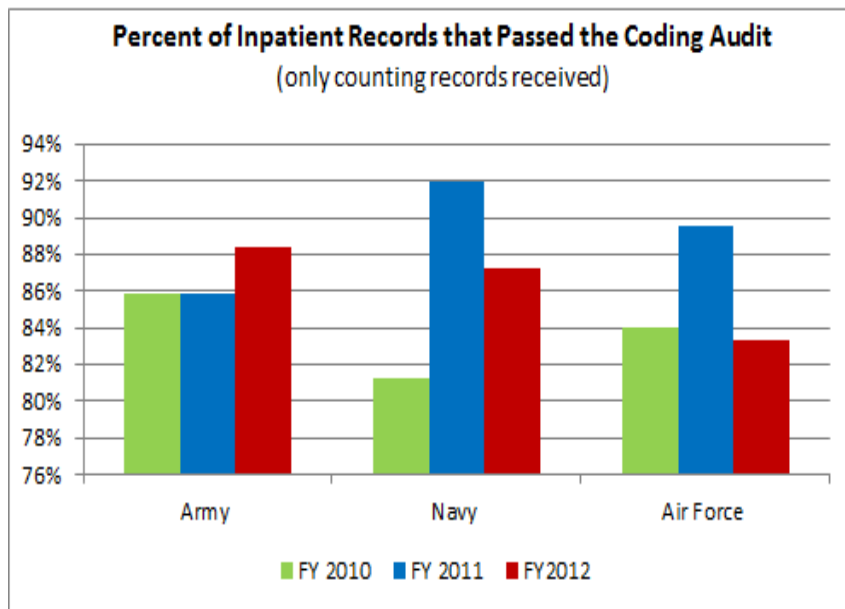
**Observation:** FY12 response rates are either lower or about the same regardless of NCR MD except for Air Force which has a higher response rate than previous years.

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# Inspections and External Audits



## Patient Coding Audit Results



**Observation:** With the exception of Army, the FY12 pass rate dropped significantly for Navy, Air Force and NCR MD, regardless of NCR MD.

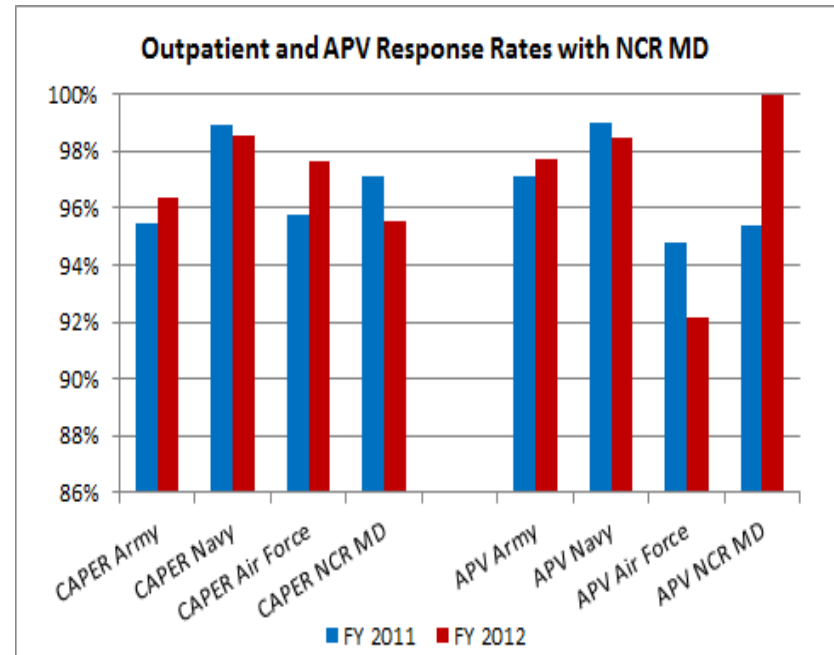
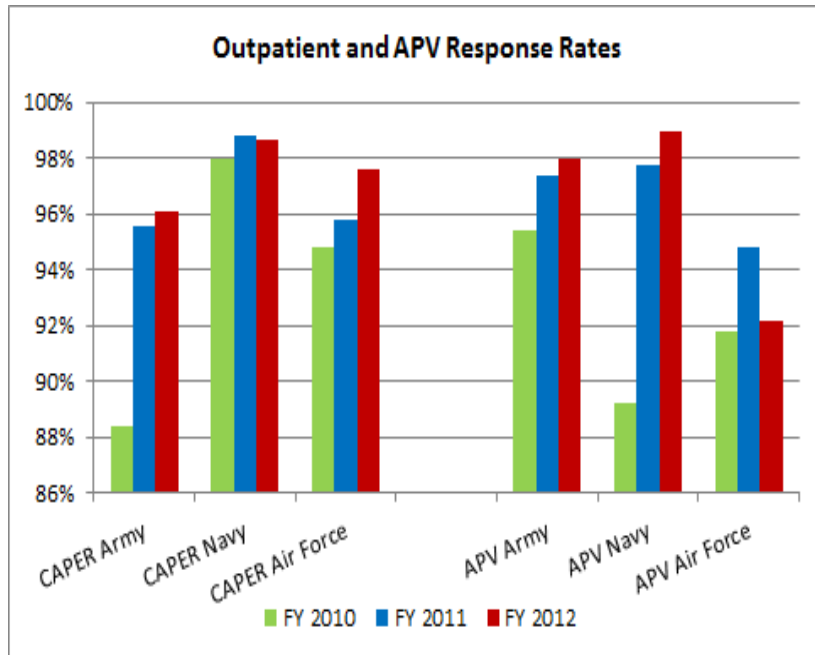
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# Inspections and External Audits



## Outpatient Audit Response Rates



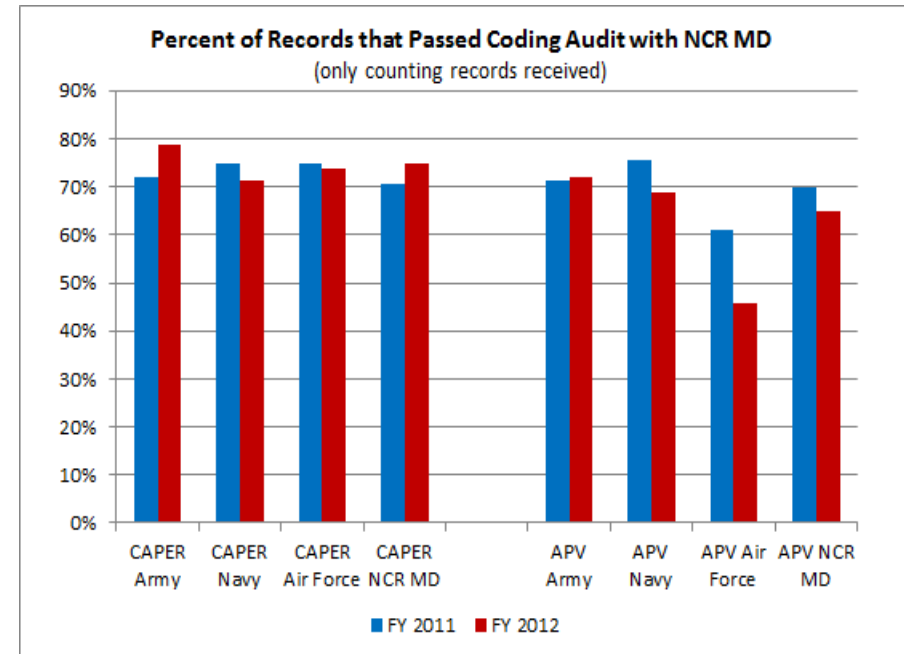
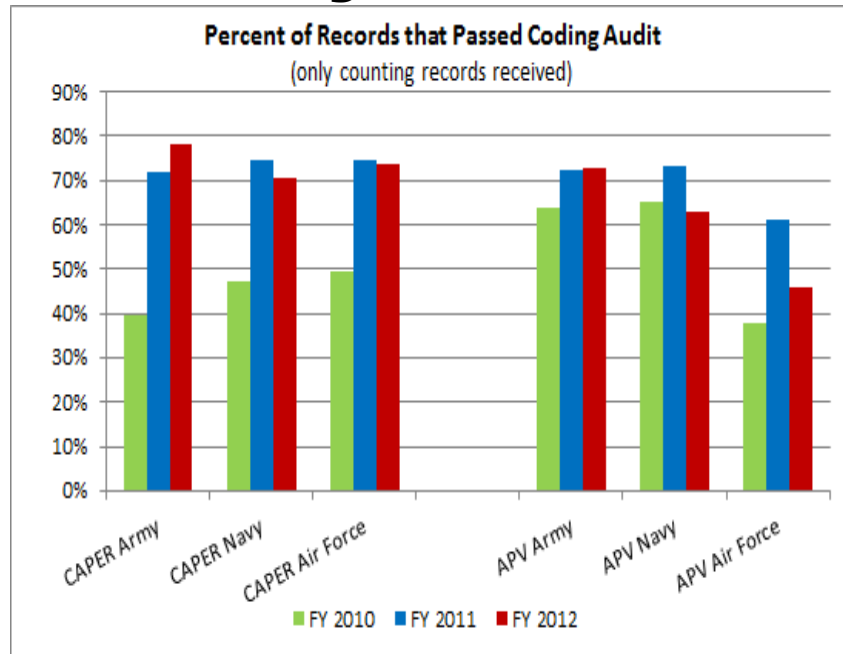
**Observation:** For CAPERs, Army's response rate is slightly higher than the previous years, while Navy's is slightly lower regardless of NCR MD. For APVs, both Army and Navy response rate is higher than previous years, but when NCR MD is reported, Navy's response rate drops slightly. Air Force's response rate increased from the previous years for CAPERS but not for APVs.

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# Inspections and External Audits



## Outpatient Coding Audit Results



**Observation:** For CAPERs, Army's pass rate is better than previous years regardless of NCR MD, while Navy's pass rate has slightly decreased and Air Force is about the same. For APVs, comparing this year's pass rate to last year's, Army's pass rate is about the same regardless of NCR MD, while Navy's pass rate is lower but not by as much when NCR MD is reported. Air Force APV pass rate has significantly dropped.

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# Inspections and External Audits



- FY15 External Coding Audit
  - ❑ Sample methodology same as FY14
  - ❑ Used FY14 medical records rather than dropping back to FY13, to allow more timely reporting
  - ❑ All received Outpatient records have been coded
  - ❑ APV and IP are underway
  - ❑ A 4% reaudit and subsequent 3% external reaudit will be performed prior to calculating final results

# Current Topics and Issues



## Some of the topics being pursued:

- Coding Resources:
  - ❑ MTFs struggling to bring coding resources to the table
  - ❑ Issue is critical with ICD-10 in FY16
  - ❑ Shared Services Coding Work Group (CWG) is investigating ways to augment MTF resources with remote coding
- Training:
  - ❑ DQMC Training Course, DQMC Program Webinars, Using M2 DQ Reports to Improve MTF Data Quality (hands-on tutorial)
  - ❑ Service specific training

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# Current Topics and Issues



- Completion of annual Data Quality Statement update for FY16:
  - Promoting the incomplete SIDR and CAPER questions from being DQMC Review List-only to also being reported on the Commander's DQ Statement
  - Amplifying the current Inpatient medical coding audit question that reviews only Diagnosis Related Group (DRG), to look also at the ICD-10 procedure (ICD-10-PCS) and diagnosis (ICD-10-CM) codes
- Timely deployment of ICD-10 Code table and Medicare Severity – Diagnosis Related Groups (MS-DRG) Grouper

# Conclusion



## How Can You Help?

- Provide **feedback** to staff and **use the data**
- Develop dashboards
- Brief medical staff on command data
  - ☐ Executive Steering Committee
  - ☐ Department & Division Heads
- Be well-read/knowledgeable in data quality
  - ☐ Reporting
  - ☐ Analysis
- Network and share information

# Questions

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